# California Morbidity

**Department of Health Services** | **Health and Human Services Agency** | **State of California**
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## Falls in Senior Californians

Injury hazards come in many familiar forms. People are hurt in mishaps involving cars, poisons, guns, water, and fire, among countless others. But the most pervasive source of injury is gravity. More people suffer serious injuries from falling than from any other cause. Fall injuries are common among people of all ages, but as people enter their senior years, the risk of falling grows dramatically. The Department of Health Services used data on hospitalizations (from the Office of Statewide Health Planning and Development) to look at fall injuries in 1995-1997 among Californians age 55 and older ("seniors").

### How Many Seniors Suffer Fall Injuries?

The number of seniors hospitalized for treatment of a fall is, by any standard, huge:

Source: Department of Health Services

| Year | Rate per 100,000 | Number |
|---|---|---|
| 1995 | 346 | 77,466 |
| 1996 | 356 | 80,124 |
| 1997 | 370 | 84,576 |

The size of these rates is hard to grasp without some kind of comparison. For example, there is great concern about traffic injuries among seniors, but for every hospitalization for a traffic injury, there are ten hospitalizations caused by falls. In 1997 falls accounted for 72 percent of all injury hospitalizations. Consistent with other studies in the U.S. and Europe, the rate appears to be rising.

Unlike any other type of traumatic injury, the risk of a fall injury increases exponentially with age. The rate among Californians age 85 and older is 57 times higher than for people age 20 to 55 years.

Source: Department of Health Services

| Age | Rate per 100,000 | Number |
|---|---|---|
| 20-54 Years | 97 | 48,658 |
| 55-64 Years | 269 | 19,072 |
| 65-74 Years | 683 | 40,030 |
| 75-84 Years | 2,089 | 72,818 |
| 85 Years + | 5,532 | 61,588 |

## Falls “on the same level” Are the Most Common

Research has shown that many seniors fear falling so much that they become extremely cautious and stick close to home. Defining "home" to include both personal dwellings and group facilities like hospitals and nursing homes, we find that three-fourths of senior falls occur at home, compared to two-thirds of falls in people 20 to 55 years.

So far, we have looked at all falls. Sixty-four percent of these are "slips, trips, or stumbles," that is, falls on the same level rather than from stairs, ladders or some other "higher level." Among younger adults age 20 to 55 years, the rate per 100,000 for falls on the same level is 31. In the 85 and older age group, the rate reaches 2,383, which is 76 times higher.

## The High Risk Groups

We have seen that age itself is a risk factor. A person's race/ethnicity and sex also influence risk of a fall injury. Among seniors, the rate for females is nearly double that for males (457 versus 259). The rate for whites is double or more the rate for blacks, Hispanics and Asian/Pacific Islanders, and Native Americans. In California the population is large and diverse enough to look at all major age-sex-race/ethnic combinations. When we do that, we find that older, white females have the greatest risk.

From our hospitalization records and past research, we cannot say whether older white women are more likely to fall or whether they are simply more likely to be badly hurt when they do fall. Is falling the problem, or is it fragility? We know from other studies, that older white women have distinctively high rates of osteoporosis, which hints that the culprit is fragility. The most common diagnosis among seniors who fall is a fracture.

## Consequences of Fall Injuries

Studies have found that when older people fall, they often never recover completely. In our study population, the proportion of fall victims discharged home declines rapidly and progressively with age. For example, among persons age 20 to 55 years, 83 percent are discharged home, five percent go to long term care and one percent die. Among persons age 85 and older, only 14 percent are discharged home, 64 percent go to long term care, and four percent die.

Another consequence of falling is cost. The cost of most senior injuries is borne by public funds, especially Medicare. Senior falls in 1995-1997 entailed an average hospital charge of $17,086 (not adjusted for inflation), paid for by public payers, private insurers, and the patients themselves. This is a very conservative estimate of cost in that it does not include doctor's fees, ambulance, or any subsequent care like nursing home care, rehabilitation, home care, and so on. Still, the number of fall injuries is so great that the total impact on medical resources is huge. For the study period, hospital charges alone for senior falls totaled $4.1 billion.

## The Future

Although overall injury deaths and hospitalizations are declining, senior fall injury rates appear to be rising. California's population is also aging, which means that the absolute size of the fall injury problem will grow. Demographers forecast that the percentage of California's population age 55 and older, which stands at 18 percent in 1999, will grow to 26 percent in 2040. One hopes that interest in fall prevention will also grow. Fortunately, the public health community has already developed some effective strategies for prevention. Methods include: improving physical conditioning, osteoporosis prevention and treatment, monitoring of medications which may affect balance, and eliminating fall hazards in the home (removing throw rugs, installing bathroom grab bars, increasing illumination, etc.). Fall prevention holds great promise for helping older Californians stay active, healthy, and independent.

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*Editor note: The California Morbidity Report's editorial committee has received the suggestion to change the name of the CMR. We welcome your comments and suggestions and invite you to send them to the California Morbidity Editorial Committee c/o DCDCCM@dhs.ca.gov. The report will continue to be available in hard copy but is now available electronically as well. Please let us know your preferred method for receiving the CMR by contacting the California Morbidity Editorial Committee by email at DCDCCM@dhs.ca.gov or by fax at (916) 324-0050. Please include your receiving email address or US postal address for the delivery.*

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